

## WHAT IS CLAIMED IS:

1. A device for monitoring the deployment of respirator users, the device comprising:  
an image recording means by which an image falling near or about the eyes of the device  
user can be recorded;

a display;

5 a signal processor for evaluating the image signals recorded by said image recording  
means;

an input means for receiving data;

a storage medium for storing building topography data;

10 means for determining an instantaneous position of the device user by evaluating the  
image signals sent by said image recording means by pattern recognition.

2. A device in accordance with claim 1, wherein said input medium is a bar code reader.

3. A device in accordance with claim 1, wherein the input medium is a speech input  
device.

4. A device in accordance with claim 1, wherein the input medium is a memory chip.

5. A device in accordance with claim 1, wherein a LCD display is provided for providing  
an output of image signals via said display means.

6. A device in accordance with claim 1, wherein said display means is arranged in the field of view of the device user within a gas mask.

7. A device in accordance with claim 1, wherein the building topology comprises fixed points such as stairs, columns and window openings.

8. A device in accordance with claim 1, further comprising means for transmitting the position data and image signals to a deployment center.

9. A process for monitoring the deployment of respirator users, the process comprising the steps of:

recording of image signals with an image recording device, the image corresponding substantially to an image falling on the eyes of the device user;

5 storing the topology of a building, in which the user of the device is located, in a storage medium; and

determining the instantaneous position of the user of the device within the building by the evaluation of the image signals by means of pattern recognition.

10. A process in accordance with claim 9, wherein the entry position into the building is predetermined with said input medium.

11. A respirator user monitoring system comprising:

an image recording device connected to a respirator or to a user of the respirator for providing image signals;

a display;

5 a signal processor for evaluating the image signals recorded by said image recording means;

an input means for receiving data;

a storage medium for storing building topography data;

a processor receiving building topography data via said input means and evaluating said  
10 recorded image signals by comparing patterns of said building topography data with said recorded image signals for determining an instantaneous position of the device user.

12. A system in accordance with claim 11, wherein said input medium is a bar code reader for one of providing data to said processor and triggering access to data stored in said storage medium by said processor.

13. A system in accordance with claim 11, wherein the input medium is a speech input device for one of providing data to said processor and triggering access to data stored in said storage medium by said processor.

14. A system in accordance with claim 11, wherein the input medium is a memory chip for one of providing data to said processor and triggering access to data stored in said storage medium by said processor.

15. A system in accordance with claim 11, wherein a LCD display is provided for providing an output of image signals via said display means.

16. A system in accordance with claim 11, wherein said display means is arranged in the field of view of the display user within a gas mask.

17. A system in accordance with claim 11, wherein the building topology comprises fixed points such as stairs, columns and window openings.

18. A system in accordance with claim 11, further comprising transmission means for transmitting position data and image signals to a deployment center.